Accton

Making Partnership Work

CheetahSwitch 3008/3016B

Quick Installation Guide

Accton

Making Partnership Work

Quick Installation Guide

CheetahSwitch 3008/3016B

Fast Ethernet Switch
with 8/16 10BASE-T / 100BASE-TX (RJ-45) Ports

.Accton makes no warranties with respect to this documentation and disclaims any implied warranties of merchantability, quality, or fitness for any particular purpose. The information in this document is subject to change without notice. Accton reserves the right to make revisions to this publication without obligation to notify any person or entity of any such changes.

On-line Registration

For quick warranty registration, log on our website at **http://register.acctontech.com** to register your Accton products.

Accton

International Headquarters
No. 1 Creation Road III,
Science-based Industrial Park
Hsinchu 300, Taiwan
Phone: +886-3-5770-270
Fax: +886-3-5770-267
Internet: support@accton.com.tw

Asia Pacific Headquarters
1 Claymore Drive
#08-05/06 Orchard Towers (Rear Block)
Singapore 229594
Phone: +65 238 6556
Fax: +65 238 6466
Internet: www.acctontech.com

Europe Headquarters
Edificio Conata II,
Calle Fructuós Gelabert 6-8, 2º, 4ª,
08970 - Sant Joan Despí,
Barcelona, Spain.
Phone: +34-93-477-4920
Fax: +34-93-477-3774

AC-ES3008B
AC-ES3016B
E042002-R01
150000016700A

Accton Technology Corporation

Limited Warranty: Accton warrants all is products to be free of manufacturing defects in workmanship and materials, under normal use and service, for the applicable warranty term. All Accton products carry a standard 90-day limited warranty from the date of purchase from Accton or its Authorized Reseller. Accton may, at its own discretion, repair or replace any product not operating as warranted with a similar or functionally equivalent product, during the applicable warranty term.

The standard limited warranty can be upgraded to a Limited Lifetime* warranty by registering new products within 30 days of purchase from Accton or its Authorized Reseller. Registration can be accomplished via the enclosed product registration card or online via the Accton web site. Failure to register will not affect the standard limited warranty. The Limited Lifetime warranty covers a product during the Life of that Product, which is defined as the period of time during which the product is an “Active” Accton product. A product is considered to be “Active” while it is listed on the current Accton price list. As new technologies emerge, older technologies become obsolete and Accton will, at its discretion, replace an older product in its product line with one that incorporates these newer technologies. At that point, the obsolete product is discontinued and is no longer an “Active” Accton product. A list of discontinued products is attached with the most recent version being available on the support section of our web site (http://www.acctontech.com).

All products that are replaced become the property of Accton. Replacement products may be either new or reconditioned. Any replaced or repaired product carries either a 30-day limited warranty or the remainder of the initial warranty, whichever is longer. Accton is not responsible for any custom software or firmware, configuration information, or memory data of Customer contained in, stored on, or integrated with any products returned to Accton pursuant to any warranty. Products returned to Accton should have any customer-installed accessory or add-on components, such as expansion modules, removed prior to returning the product for replacement. Accton is not responsible for these items if they are returned with the product.

Customers must contact Accton for a Return Material Authorization number prior to returning any product to Accton. Proof of purchase may be required. Any product returned to Accton without a valid Return Material Authorization (RMA) number clearly marked on the outside of the package will be returned to customer at customer’s expense. Customers are responsible for all shipping charges from their facility to Accton. Accton is responsible for return shipping charges from Accton to customer.

WARRANTIES EXCLUSIVE: IF AN ACCTON PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, CUSTOMER'S SOLE REMEDY SHALL BE REPAIR OR REPLACEMENT OF THE PRODUCT IN QUESTION, AT ACCTON'S OPTION. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER. WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. ACCTON NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE OR USE OF ITS PRODUCTS. ACCTON SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THE ALLEGED DEFECT IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLECT, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO REPAIR, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING, OR OTHER HAZARD.

LIMITATION OF LIABILITY: IN NO EVENT, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), SHALL ACCTON BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE, LOSS OF BUSINESS, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF ITS PRODUCTS, EVEN IF ACCTON OR ITS AUTHORIZED RESELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

SOME COUNTRIES DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR THE LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, WHICH MAY VARY FROM STATE TO STATE. NOTHING IN THIS WARRANTY SHALL BE TAKEN TO AFFECT YOUR STATUTORY RIGHTS.

* Accton will provide warranty service for up to three years following discontinuance from the active Accton price list. Under the limited lifetime warranty, internal and external power supplies, fans, and cables are covered by a standard one-year warranty from date of purchase.

Contents

Introduction

The CheetahSwitch 3008B and CheetahSwitch 3016B are perfect for moving workgroups from conventional 10 Mbps Ethernet to multiple-segment 100 Mbps Fast Ethernet. These switches deliver dedicated 100 Mbps links to each attached LAN segment (independent collision domain) or to any PC attached directly to the switch – all with conventional cabling and adapters. They completely eliminate the bottlenecks of shared 10 Mbps Ethernet networks by providing a wide bandwidth. This makes them ideal for increasing the throughput of interconnected Ethernet and Fast Ethernet hubs or server farms.

Installing the Switch

Before installing the switch verify that you have all the items listed under “Package Contents.” If any of the items are missing or damaged, contact your local Accton distributor. Also be sure you have all the necessary tools and cabling before installing the switch. Note that these switches can be installed on any suitably large flat surface or in a standard EIA 19-inch rack.

Package Contents

The CheetahSwitch includes:

- CheetahSwitch 3008B (Model No. AC-ES3008B) or
- CheetahSwitch 3016B (Model No. AC-ES3016B)
- Four rubber foot pads
- AC power cord
- Rack mount bracket kit*
- This Quick Installation Guide
- Owner registration card

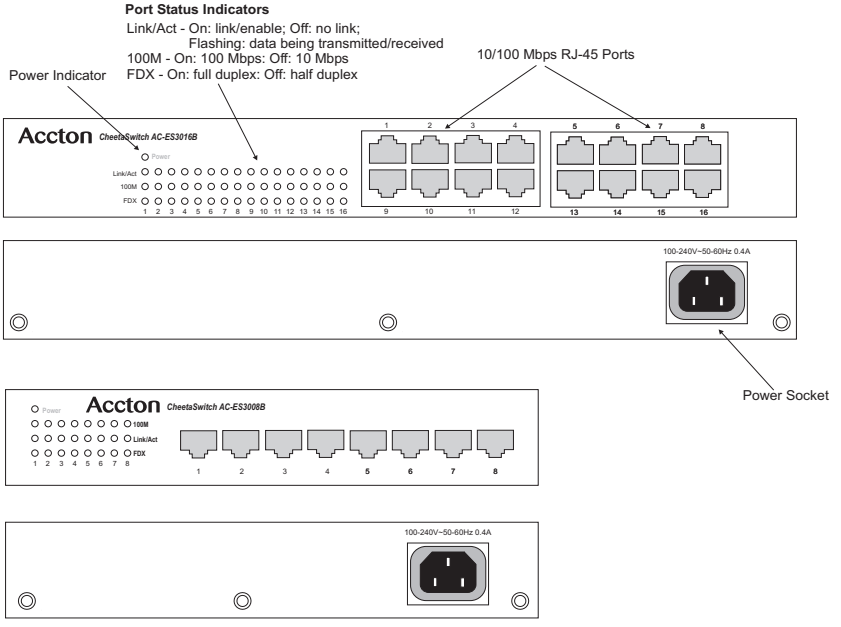
*This is not supplied with the AC-ES3008B but may be ordered from your local Accton distributor.

Description of Hardware

The CheetahSwitch 3008B and CheetahSwitch 3016B are 8/16-port Fast Ethernet switches. The 10BASE-T/100BASE-TX ports deliver dedicated 10/100 Mbps links to each attached LAN segment – all with conventional cabling and adapters.

Auto-negotiation is used to select the optimal communication mode for each connection. Auto-sensing is used to select the optimal transmission speed for each connection. With store-and-forward switching and flow control, maximum data integrity is always maintained, even under heavy loading. Easy installation and reliability make these plug-and-play switches an ideal choice for smooth Fast Ethernet integration.

The following figure shows the components of these switches:



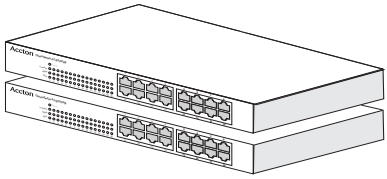
Mounting the Switch

This switch can be placed directly on your desktop, or mounted in a rack.

Before you start installing the switch, make sure you can provide the right operating environment, including power requirements, sufficient physical space, and proximity to other network devices that are to be connected. Verify the following installation requirements:

- Power requirements: 100 to 240 VAC (± 10%) at 50 to 60 Hz (± 3Hz). The switch's power supply automatically adjusts to the input voltage level.
- The switch should be located in a cool dry place, with at least 10 cm (4 in) of space on the sides for ventilation.
- Place the switch out of direct sunlight, and away from heat sources or areas with a high amount of electromagnetic interference.
- If you intend to mount the switch in a rack, make sure you have all the necessary mounting screws, brackets, bolts and nuts, and the right tools.
- Check if network cables and connectors needed for installation are available.

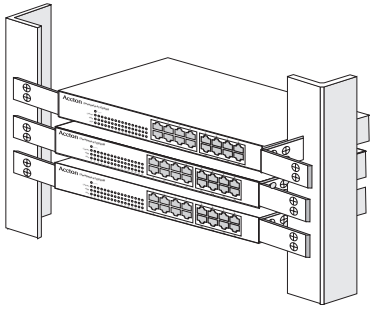
Stacking Switches on a Flat Surface



The CheetahSwitch can be placed anywhere there is enough flat space, such as on a table or desktop.

1. Stick the self-adhesive rubber foot pads (that come with this package) on each of the 4 concave spaces located on the bottom of the first switch.
2. Place the first switch on a firm flat surface where you want to install the stack.
3. Repeat step 1 for each switch before stacking them. The rubber foot pads cushion the switch against shock/vibrations and provide space between each switch for ventilation.

Mounting Switches in a Rack



Please comply with the following instructions to ensure that your switch is securely mounted in the rack.

1. Use a standard EIA 19-inch rack.
2. Use the brackets and screws supplied in the rack mounting kit with the AC-ES3016B. A rack mounting kit it is not provided with the AC-ES3008B, but may be ordered from your local Accton distributor.
3. Use a cross-head screwdriver to attach the brackets to the side of the switch.
4. Position the switch in the rack by lining up the holes in the brackets with the appropriate holes on the rack, and then use the rack-mount screws to mount the switch in the rack.

Connecting the Switch System

The CheetahSwitch provides 8/16 RJ-45 ports on the base unit. Each of these ports supports connection to 10 Mbps Ethernet or 100 Mbps Fast Ethernet, and supports full- or half-duplex operation. The transmission speed for each port is automatically set by the switch to match the highest speed supported by the connected device. The transmission mode can be set for each port using auto-negotiation (if also supported by the attached device).

Making a Connection to an RJ-45 Port

Because all ports on this switch support automatic MDI/MDI-X operation, you can use straight-through cables for all network connections to PCs or servers, or to other switches or hubs.

1. Prepare the network devices you wish to network. Make sure you have installed 10BASE-T or 100BASE-TX network interface cards for connecting to the switch’s RJ-45 ports.

2. Prepare straight-through shielded or unshielded twisted-pair cables with RJ-45 plugs at both ends. Use 100-ohm Category 3, 4 or 5 cable for standard 10 Mbps Ethernet connections, or 100-ohm Category 5 cable for 100 Mbps Fast Ethernet connections.
3. Connect one end of the cable to the RJ-45 port of the network interface card, and the other end to any available RJ-45 port on the switch. All RJ-45 ports support 10 Mbps and 100 Mbps Ethernet connections. When inserting an RJ-45 plug, be sure the tab on the plug clicks into position to ensure that it is properly seated. Using the switch in a stand-alone configuration, you can network up to 8/16 end nodes.

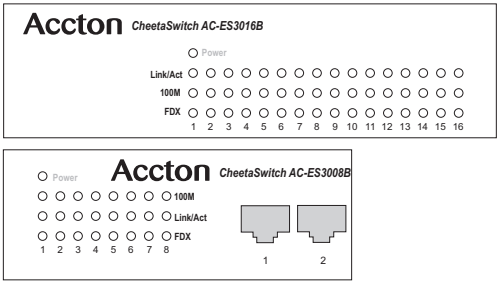
Restrictions on Cascade Length - The IEEE 802.3 standard recommends restricting the number of hubs (i.e., repeaters) cascaded via twisted-pair cable to four; while IEEE 802.3u provides even stricter recommendations for Fast Ethernet. Therefore, when cascading devices other than this switch, please refer to the accompanying documentation for cascade restrictions. However, note that because switches break up the path for connected devices into separate collision domains, you should not include the switch or connected cabling in your calculations for cascade length involving other devices.

Powering On the Switch

1. Plug the power cord into the power socket on the rear of the switch, and the other end into a power outlet.
2. Check the LED marked Power on the front panel to see if it is on. The unit will automatically select the setting that matches the connected input voltage. Therefore, no additional adjustments are necessary when connecting it to any input voltage within the range marked on the rear panel.
3. The switch performs a self-diagnostic test upon power-on. (Note that this test takes several seconds to complete.)

Verifying Port Status

The front panel of the switch provides status LEDs for “at-a-glance” system monitoring. The following table details the functions of the various indicators:



Port and System Status LEDs		
LED	**Condition**	**Status**
Power	On	The switch is receiving power.
RJ-45 Ports		
Link/Act	On	The port has established a valid network connection.
	Flashing	Traffic is passing through the port.
	Off	The port has not established any network connection.
100M	On	Communications have been set to 100 Mbps.
	Off	Communications have been set to 10 Mbps.
FDX	On	The port is in full-duplex mode.
	Off	The port is in half-duplex mode.

Verifying System Operation

Verify that all attached devices have a valid connection. The switch monitors the link status for each port. If any device is properly connected to the switch and transmitting a link signal, the Link indicator will light up for the corresponding port. If the Link indicator fails to light when you connect a device to the switch, check the following items:

- Be sure all network cables and connectors are properly attached to the connected device and the switch.
- See if your cable is functioning properly by using it for another port and attached device that displays valid indications when connected to the network.
- Be sure no twisted-pair cable exceeds 100 meters (328 feet).

Applications

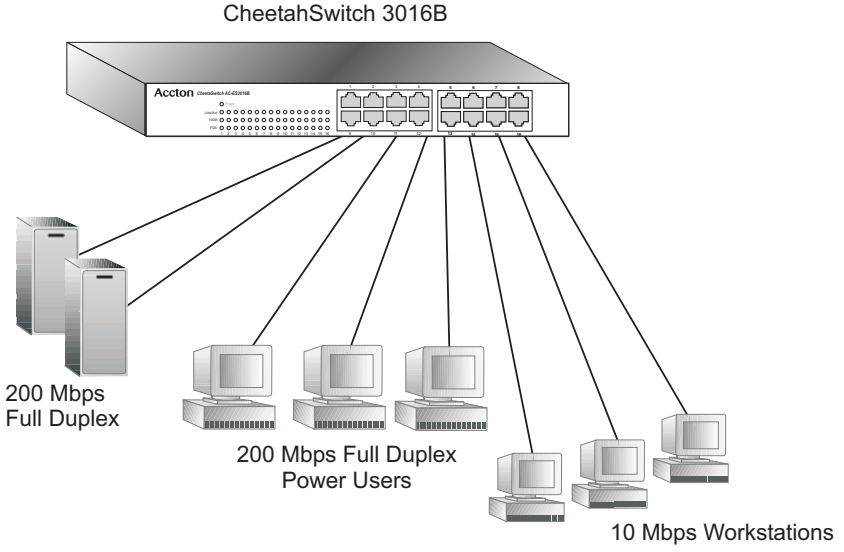
This switch segments your network, significantly increasing both bandwidth and throughput. Any port on the switch can be attached to a hub (a shared collision domain) or provide a dedicated link to a single network device (such as a workstation or server). When a port on the switch is connected to a hub (a 10 or 100 Mbps repeater), the bandwidth provided by that port is shared by all the devices connected to the attached hub. However, when a port is connected to an end node or to a device that breaks up the collision domain (e.g., another switch, bridge or router), the attached device has access to the full bandwidth provided by that port.

Bridging Functions – This switch provides fully transparent bridging functions. It automatically learns node addresses, that are subsequently used to filter and forward all traffic based on the destination address. When traffic passes between devices attached to the same shared collision domain, those packets are filtered from the switch. But when traffic must be passed between unique segments (i.e., different ports on the switch), the high-speed switching fabric forwards the packets at near zero latency.

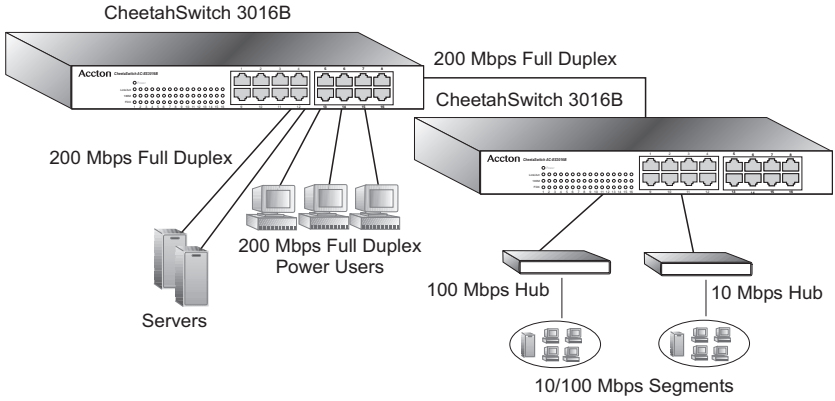
Switching Functions – Store-and-forward switching is used to forward traffic to other ports. This scheme ensures data integrity and provides a clean data stream.

Flexible Configuration – This switch is not only designed to segment your network, but also to provide a wide range of options in setting up network connections. It can be used as a simple stand-alone switch; or connected with standard repeater hubs, switches, or other network interconnection devices in various configurations.

Standalone LAN – In the figure below, the CheetahSwitch is operating as a collapsed backbone for a small LAN. It is providing dedicated 20 Mbps full-duplex connections to workstations and 200 Mbps full-duplex connections to power users and servers.



High-Speed Switch Links – In this application a 200 Mbps full-duplex link is made to a second CheetahSwitch 3016B.



Product Specifications

Physical Characteristics

Standards Conformance	IEEE 802.3, IEEE 802.3u, IEEE 802.3x ISO/IEC 8802-3
Communication Rate	10/100 Mbps
Communication Mode	Full or half duplex
Media Supported	10BASE-T - 100-ohm Category 3, 4, 5 twisted-pair 100BASE-TX - 100-ohm Category 5 twisted-pair
Number of Ports	AC-ES3008B: 8 RJ-45 100BASE-TX ports AC-ES3016B: 16 RJ-45 100BASE-TX ports
Indicator Panel	System: Power; Ports: Link/Activity, 100M, FDX
Dimensions	AC-ES3008B: 196.8 x 116.7 x 37 mm (7.76 x 4.6 x 1.46 in) AC-ES3016B: 273.5 x 166.3 x 44.2 mm (10.78 x 6.55 x 1.74 in)
Weight	AC-ES3008B: 0.675 kg (1lb 8 oz) AC-ES3016B: 1.425 kg (3 lb 2 oz)
Input Power	100 to 240 VAC, 50 to 60 Hz (±3 Hz), 0.4 A max.
Maximum Current	100 mA typical, 300 mA max.
Power Consumption	13.2 Watts maximum, 5.2 Watts typical @ 100-240 VAC
Heat Dissipation	45 BTU/hr maximum @ 100-240 VAC
Temperature	Operating: 0 ~ 40 °C / 32 ~ 104 °F, Storage: -40 ~ 70 °C / -40 ~ 158 °F
MTBF	60,000 hours @ 25°C, 25,000 hours @ 50°C
Immunity	EN 61000-4-2/3/4/5/6/8/11
Emissions	FCC Class A, VCCI, CISPR Class A, EN 61000-3-2/3, C-Tick
Safety	CSA/NRTL, TÜV/GS

Switching Criteria

Network Bridging Function	Filtering, forwarding and learning
Switching Method	Store-and-forward
Address Table	AC-ES3008B: 1K entries per system AC-ES3016B: 8K entries per system

Troubleshooting

Diagnosing Switch Indicators

Symptom
Power LED does not light after power on.

Probable Causes
Power outlet or power cord may be defective.

Possible Solutions

- Check for loose connections.
- Check the power outlet by using it for another device.
- Replace the power cord.

Symptom
Link LED does not light after connection is made.

Probable Causes
Switch port, network card or cable may be defective.

Possible Solutions

- Check that the switch and attached device are both powered on.
- Be sure the network cable is connected to both devices.
- Verify that Category 5 cable is used for 100 Mbps connections and that the length of any cable does not exceed 100 meters (328 feet).
- Check the network card and cable connections for defects.
- Replace the defective card or cable if necessary.

Power and Cooling Problems

If the power indicator does not turn on when the power cord is plugged in, you may have a problem with the power outlet, power cord, or internal power supply as explained in the previous section. However, if the unit powers off after running for a while, check for loose power connections, power losses or surges at the power outlet, and verify that the fans on the right-hand side of the unit are unobstructed and running prior to shutdown. If you still cannot isolate the problem, then the internal power supply may be defective. In this case, contact your Accton distributor for assistance.

Installation

Verify that all system components have been properly installed. If one or more components appear to be malfunctioning (e.g., the power cord or network cabling), test them in an alternate environment where you are sure that all the other components are functioning properly.

Cables

Cable Specifications

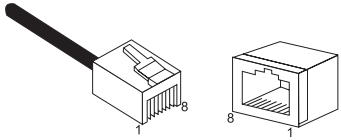
Cable Types and Specifications			
Cable	**Type**	**Max. Length**	**Connector**
10BASE-T	Cat. 3, 4, 5 100-ohm UTP	100 m (328 ft)	RJ-45
100BASE-TX	Cat. 5 100-ohm UTP	100 m (328 ft)	RJ-45

Port and Cable Assignments

Caution: DO NOT plug a phone jack connector into any RJ-45 port. Use only twisted-pair cables with RJ-45 connectors that conform with FCC standards.

Use unshielded twisted-pair (UTP) or shielded twisted-pair (STP) cable for RJ-45 connections: 100-ohm Category 3, 4 or 5 cable for 10 Mbps connections or 100-ohm Category 5 cable for 100 Mbps connections. Also be sure that the length of any twisted-pair connection does not exceed 100 meters (328 feet).

Because all ports on this switch support automatic MDI/MDI-X operation, you can use straight-through cables for all network connections to PCs or servers, or to other switches or hubs. In straight-through cable, pins 1, 2, 3, and 6, at one end of the cable, are connected straight through to pins 1, 2, 3 and 6 at the other end of the cable. The table below shows the 10BASE-T/100BASE-TX MDI and MDI-X port pinouts.



Pin	MDI-X Signal Name	MDI Signal Name
1	Receive Data plus (RD+)	Transmit Data plus (TD+)
2	Receive Data minus (RD-)	Transmit Data minus (TD-)
3	Transmit Data plus (TD+)	Receive Data plus (RD+)
6	Transmit Data minus (TD-)	Receive Data minus (RD-)
4,5,7,8	Not used at 10/100 Mbps	Not used at 10/100 Mbps

Compliances

EMI Certification

FCC Class A Certification (USA)

Warning: This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A digital device pursuant to Subpart A of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures are required to correct the interference.

You may use unshielded twisted-pair (UTP) for RJ-45 connections - Category 3 or greater for 10 Mbps connections, and Category 5 for 100 Mbps connections.

Canada Department of Communications - Class A

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled “Digital Apparatus,” ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe A prescrites dans la norme sur le matériel brouilleur: “Appareils Numérques,” NMB-003 édictée par le ministère des Communications.

Australia AS/NZS 3548 (1995) - Class A

ACN 066 352 010

VCCI Class A Compliance (Japan)

この装置は、情報技術装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

CE Mark Declaration of Conformance for EMI and Safety (EEC)

This information technology equipment complies with the requirements of the Council Directive 89/336/EEC on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility and 73/23/EEC for electrical equipment used within certain voltage limits and the Amendment Directive 93/68/EEC. For the evaluation of the compliance with these Directives, the following standards were applied:

RFI Emission:
- Limit class A according to EN 55022:1998
- Limit class A for harmonic current emission according to EN 61000-3-2/1995
- Limitation of voltage fluctuation and flicker in low-voltage supply system according to EN 61000-3-3/1995

Immunity:
- Product family standard according to EN 55024:1998
- Electrostatic Discharge according to EN 61000-4-2:1995 (Contact Discharge: ±4 kV, Air Discharge: ±8 kV)
- Radio-frequency electromagnetic field according to EN 61000-4-3:1996 (80 - 1000 MHz with 1 kHz AM 80% Modulation: 3 V/m)
- Electrical fast transient/burst according to EN 61000-4-4:1995 (AC/DC power supply: ±1 kV, Data/Signal lines: ±0.5 kV)
- Surge immunity test according to EN 61000-4-5:1995 (AC/DC Line to Line: ±1 kV, AC/DC Line to Earth: ±2 kV)
- Immunity to conducted disturbances, Induced by radio-frequency fields: EN 61000-4-6:1996 (0.15 - 80 MHz with 1 kHz AM 80% Modulation: 3 V/m)
- Power frequency magnetic field immunity test according to EN 61000-4-8:1993 (1 A/m at frequency 50 Hz)
- Voltage dips, short interruptions and voltage variations immunity test according to EN 61000-4-11:1994 (>95% Reduction @10 ms, 30% Reduction @500 ms, >95% Reduction @5000 ms)

LVD:
- EN 60950 (A1/1992; A2/1993; A3/1993; A4/1995; A11/1997)

Warning! Do not plug a phone jack connector in the RJ-45 port. This may damage the device. Les raccordeurs ne sont pas utilisé pour le système téléphonique!

Underwriters Laboratories Inc. (USA)

Important! Before making connections, make sure you have the correct Cord Set. Check it (read the label on the cable) against the following specification list.

Operating Voltage	Cord Set Specifications
120 Volts	UL Listed/CSA Certified Cord Set
	Minimum 18 AWG
	Type SVT or SJT three conductor cord
	Maximum length of 15 feet
	Parallel blade, grounding type attachment plug rated 15 A, 125 V
240 Volts (Europe only)	Cord Set with H05VV-F cord having three conductors with minimum diameter of 0.75 mm^2
	IEC-320 receptacle
	Male plug rated 10 A, 250 V

Wichtige Sicherheitshinweise (Germany)

1. Bitte lesen Sie diese Hinweise sorgfältig durch.
2. Heben Sie diese Anleitung für den späteren Gebrauch auf.
3. Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Verwenden Sie keine Flüssigoder Aerosolreiniger. Am besten eignet sich ein angefeuchtetes Tuch zur Reinigung.
4. Die Netzanschlu ßsteckdose soll nahe dem Gerät angebracht und leicht zugänglich sein.
5. Das Gerät ist vor Feuchtigkeit zu schützen.
6. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Beschädigungen hervorrufen.
7. Die Belüftungsöffnungen dienen der Luftzirkulation, die das Gerät vor Überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.
8. Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.
9. Verlegen Sie die Netzanschlußleitung so, daß niemand darüber fallen kann. Es sollte auch nichts auf der Leitung abgestellt werden.
10. Alle Hinweise und Warnungen, die sich am Gerät befinden, sind zu beachten.
11. Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.
12. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.
13. Öffnen sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von authorisiertem Servicepersonal geöffnet werden.
14. Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprüfen:
    a. Netzkabel oder Netzstecker sind beschädigt.
    b. Flüssigkeit ist in das Gerät eingedrungen.
    c. Das Gerät war Feuchtigkeit ausgesetzt.
    d. Wenn das Gerät nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.
    e. Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.
    f. Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.
15. Zum Netzanschluß dieses Gerätes ist eine geprüfte Leitung zu verwenden. Für einen Nennstrom bis 6 A und einem Gerätegewicht größer 3 kg ist eine Leitung nicht leichter als H05VV-F, 3G, 0.75 mm^2 einzusetzen.

Der arbeitsplatzbezogene Schalldruckpegel nach DIN 45 635 Teil 1000 beträgt 70 dB(A) oder weniger .

AC-ES3008B
AC-ES3016B
E042002-R01
150000016700A
650.11725